DOCUMENT RESUME

ED 340 900 CE 060 073

AUTHOR Barrick, R. Kirby; And Others
TITLE A Review and Synthesis of Research on Supervised Experience in Agriculture. Summary of Research 65.
INSTITUTION Ohio State Univ., Columbus. Dept. of Agricultural Education.
PUB DATE 91
NOTE 13p.
PUB TYPE Information Analyses (070)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; Agricultural Education; *Program Attitudes; *Program Implementation; *Program Improvement; *Research Reports; Secondary Education; *Supervised Occupational Experience (Agriculture); *Teacher Characteristics

ABSTRACT

A literature search of theses and dissertations was conducted in order to synthesize research findings related to supervised experienced in agriculture. Studies completed at the Ohio State University were located through a library search, and a search of the university's agricultural education microfiche collection and "Dissertation Abstracts International" was made to identify dissertations completed at other universities; other research summaries and proceedings were also searched. The search yielded 78 theses and dissertations related to supervised experience in agriculture. Six categories of research were identified: program partner perceptions of supervised experience; teacher characteristics; relationship of supervised experience to student achievement; supervisory visits; responsibilities for the programs; and the broadened concept of supervised experience. Conclusions drawn for each of the six categories of findings include the following: (1) all program staff and participants agree that supervised experience provide students with beneficial skills; (2) students and parents do not value the experience as highly as other program partners; (3) the agriculture teacher is viewed as being primarily responsible for the program; (4) the quality of school facilities provided has a positive impact on the experience; (5) the number of limited opportunity students enrolling in agriculture programs is increasing; and (6) all agricultural students should be required to participate in supervised programs. Recommendations based on the research findings were made for program improvement. (65 references) (KC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED340900

SR 65

Summary of Research

Department of Agricultural Education
The Ohio State University, Columbus, Ohio 43210

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

A Review and Synthesis of Research on Supervised Experience in Agriculture

R. Kirby Barrick, Matthew Hughes and Matt Baker

Phipps and Osborne (1988) described supervised experience in agriculture as consisting "of all practical agricultural activities of educational value conducted by students outside of class and laboratory instruction or on school-released time for which systematic instruction and supervision are provided by their teachers, parents, employers, or others" (p.313). Supervised experience programs have been a significant part of vocational agriculture since R.W. Stimson, the "Father of Supervised Farming", originated the home project plan for teaching agriculture in 1908 (Deyoe, 1949). Since then, the concept of supervised experience has evolved along with the agriculture industry and agricultural education.

John Dewey (1938) advocated educational practices allowing students to experience the curriculum first hand. Dewey proposed that the curriculum build upon student experiences much the same as the concept of supervised experience in agriculture. Dewey stated that "education in order to accomplish its ends both for the individual learner and society must be based upon experience - which is always the actual life-experience of some individual" (p. 113). Stone and Wosner (1991) stated that "an emphasis on cooperative work strategies, experiential learning, and instruction that requires thinking skills, rather than rote memorization, better prepares young people for the complex work place they will soon confront" (p. 5). Recognizing the value of supervised experience programs, the National Research Council Committee on Agricultural Education in Secondary Schools recommended that all students participate in worthwhile supervised agricultural experiences (Committee on Agricultural Education in Secondary Schools, 1988).

Much research has been conducted to help guide educators in planning, conducting, and evaluating supervised experience programs. However, a need existed to compile the findings of those research studies. Cruickshank (1985) expressed the need for a compilation of educational research findings when he recommended that in order to raise the professional status of teacher education, there be a collection and codification of what is known about teaching and learning theory into an index or manual similar to a physician's desk reference. By compiling and synthesizing research findings in one area of education, supervised experience in agriculture, teacher educators and others within the agricultural education profession will be provided a reference that illustrates what is known about supervised experience and that gives guidance to future research efforts in the area. As a part of teacher education in agriculture, research on supervised experience may be codified to help teacher educators and others identify what is known.

Purpose and Procedures

The purpose of this paper was to provide a synthesis of research findings related to supervised experience in agriculture. This synthesis would illustrate what is known about supervised experience and provide a reference to both the teacher and the researcher.

To accomplish the stated purpose, a search was conducted of theses and dissertations related to supervised experience in agriculture. Studies completed at The Ohio State University were located through a library search. In addition, a search was made of The Ohio State University agricultural education microfiche collection and *Dissertation Abstracts International* to identify theses and dis-

BEST COPY AVAILABLE

sertations completed at other institutions. The 1987-88 and 1988-89 *Summaries of Research and Development Activities in Agricultural Education* and the proceedings of the 1988, 1989, and 1990 National Agricultural Education Research Meetings and Central States Agricultural Education Research Conferences were also used to identify related theses and dissertations.

Findings

The search yielded 78 theses and dissertations related to supervised experience in agriculture. After preparing abstracts of the research, six categories of findings were identified: 1) supervised experience program partner perceptions of supervised experience, 2) teacher characteristics related to supervised experience, 3) relationship of supervised experience to student achievement, 4) supervisory visits, 5) responsibilities for supervised experience, and 6) the broadened concept of supervised experience. The research findings are summarized in these six categories.

Program Partner Perceptions of Supervised Experience

Supervised experience programs are collaborative efforts of the program partners: the agriculture teacher, school administrators, parents or guardian, the student, and employer (if applicable). The close tie between program success and partner participation and commitment necessitates an examination of partner perceptions regarding supervised experience activities and outcomes.

Agriculture teachers and school administrators have been shown to be in agreement in their attitudes toward supervised experience (Brown, 1965). Drake (1962) found that Michigan agriculture teachers and school superintendents were more in agreement with the role of the teacher in supervised experience activities than in other aspects of the agriculture program. Almazzan (1981) reported that the majority of agriculture teachers and school administrators in his study had favorable attitudes toward supervised experience.

Hardway (1959) found a positive relationship between the perception of the principal toward supervised experience and enrollment in the agriculture program. All questionnaire items related to supervised experience in the study received high ratings by school principals. Trump (1961) reported similar results.

Oklahoma agriculture teachers rated the increase in student leadership skills, work habits, self-confidence, job skills, and record keeping skills related to supervised experience as being of "very high importance" (Wright, 1989). Wright further stated that agriculture teachers did not appear to perceive earning income to be the primary goal of supervised experience, even though the potential of losing income generated by the programs would have a significant impact on local economies. The teachers indicated that students, school administrators, and community leaders were aware of the impact that agriculture and supervised experience programs had on local economies.

Among the program partners, students and their parents have indicated the most negative perceptions of supervised experience. In a study by Hedges (1959), parents rated the value of supervised experience programs lowest among nine areas of Ohio vocational agriculture programs. The parents also indicated that fewer supervisory visits than were currently being made would be sufficient for the teacher to adequately supervise students. Hedges stated that either parents did not understand the importance of supervised experience or that parents did not perceive the programs to be as important as other components of the agriculture program.

Later research indicated a more positive parental view toward supervised experience. Rawls (1978) reported that all but one of 40 questionnaire items related to supervised experience received positive ratings from parents. In another study, parents indicated that the experiences and knowledge gained through summer supervised experience programs were not available during the school year (Watkins, 1981). However, those parents did not rate highly the educational benefits of the summer programs.

Parental encouragement and support of supervised experience programs was shown to be positively related to program effectiveness and quality (Gibson, 1987). Parental attitude toward supervised experience was also shown to be positively related to agriculture teachers providing meaningful student program supervision (Byers, 1972). Christensen (1964) stressed the need for agriculture teachers to establish good relationships with parents during supervisory visits. Lemon (1946) reported that agriculture teachers rated the development of a good relationship with the student and parents as being the most important aspect of supervisory visits.

Indicating negative perceptions toward supervised experience, students listed "projects in-

volved" as a very minor factor just ahead of "to aid a crippled father" as a reason for enrolling in vocational agriculture (Bridges, 1956). Watkins (1981) reported that students perceived supervisory visits from the agriculture teacher during summer placement programs to be of little benefit. The students rated moral support and encouragement as being the most beneficial aspects of summer supervisory visits. Flickinger (1942), Byers (1972), and Jones (1980) found positive relationships between student perceptions of supervised experience and: 1) achievement in vocational agriculture course work, 2) supervised experience program achievement, and 3) the amount of teacher supervision received.

Improvement projects related to supervised experience are defined as "a series of learning activities that improves the value or appearance of the place of employment, home school, or community; the enterprise or agribusiness; or the living conditions of the family" (National FFA Foundation, no date). Diley (1953) reported that only one in four students in his study carried out home improvement projects. Gipp (1959) reported that improvement projects were not being completed in accordance with the possibilities for improving family farm facilities.

Supervised experience activities utilizing facilities not owned by students nor their families have been viewed as serving an important function for those students unable to have an entrepreneurial type program. Morris (1981) reported that students working on other farms for supervised experience had significantly higher self-esteem than those students working on home farms. Miller (1961) listed four reasons given by agriculture teachers for students conducting supervised experience programs on other than the family farm: 1) lack of adequate facilities, 2) lack of parental interest, 3) competition for facilities from other family members, and 4) lack of expansion opportunities. Miller also indicated that the student crop and livestock programs conducted on other farms were slightly larger than those conducted on home farms. According to Miller, when compared to students conducting supervised experience programs on home farms, students conducting programs on other farms were perceived by a majority of agriculture teachers to have above average personalities and levels of cooperation.

The majority of cooperating farmers in the Miller study expressed positive perceptions regarding students working on their farms for supervised experience. Eighty percent of those farmers indicated that students would have the opportunity to conduct four year supervised experience programs on their farms while the students were in high school. Sixty percent of the farmers indicated a willingness to assist students establish a farming enterprise after high school graduation.

Responsibilities for Supervised Experience

Haynes (1981), Chyung (1969), and Beeman (1967) reported that participation by all program partners (teacher, parents or guardian, student, school administrators, employer) in the implementation and evaluation of supervised experience programs is important to program success. However, the agriculture teacher has generally been perceived to have primary responsibility for ensuring overall program effectiveness. McComas (1962) reported that agriculture teachers and school administrators perceived the teacher to have an obligation to help students maintain accurate farm accounts and an overall desirable program. Although administrators and teachers indicated that worthwhile experiences should be provided to students, only about 65% believed that this was being accomplished. Within this 65%, 20% more administrators than teachers indicated that worthwhile experiences were being provided.

Lindsey (1978) indicated that increasing numbers of limited opportunity students (limited by resources, family situation, or ability) in agriculture programs will require teachers to devote extra effort to ensure those students have successful supervised experience programs. Lindsey reported that the majority of agriculture teachers in her study perceived themselves as the persons most involved in the choosing of limited opportunity students for a particular supervised experience program, deciding the initial student project, and evaluating student performance therein.

Agriculture teacher job satisfaction, as related to the supervised experience responsibilities, appears to have declined in past years. In a 1950 study, Michigan agriculture teachers who had remained in teaching for five or more years indicated that supervising student projects and summer work were major factors in their decision to stay in teaching (Clark, 1950). However, in 1963, agriculture teachers indicated difficulties in developing supervised experience programs (Griffith, 1963). In a 1982 study, Texas agriculture teachers rated working with supervised experience programs as a source of only moderate satisfaction (Collins, 1982).

Knight (1977) stated that Ohio agriculture teachers were spending about 5.5 hours per week above normal responsibilities for student program supervision. Knight reported no major differences among agriculture teachers who had left the profession and those who had remained in the profession in terms of the amount of extra time spent in responsibilities related to supervised experience.

Todd (1965) found that the beginning teachers perceived their role in the development of experience programs to be very similar to the perceptions of successful experienced teachers. However, Todd found little agreement between the role expectations of beginning teachers for program development and their role performances.

Relationship of Supervised Experience to Student Achievement

Studies have indicated a positive relationship between student participation in supervised experience activities and achievement in agriculture course work and other school performance indicators. Gibson (1987) reported a positive correlation between quality of supervised experience program and membership status in FFA. Carpenter (1967) found that agriculture teachers who reported the greater frequency in having students receive state FFA degrees were the teachers whose students had the largest supervised experience programs.

Ogunrinde (1981) found that agricultural knowledge was significantly higher for Ohio students who participated in supervised experience programs. Ogunrinde also reported a significant positive relationship between student knowledge of agricultural occupations and length of related job experience. Bruton (1967) reported that animal science knowledge of first-year college of agriculture students at Oklahoma State University was higher for those who had participated in supervised experience programs which involved animals. However, Bruton found that the scope of the supervised experience programs had no apparent effect on student knowledge and understanding of animal science. Potter (1984) reported that program scope was not related to mainstreamed handicapped student achievement in agriculture course work.

Buyck (1989) concluded that students who have supervised experience programs will have higher grade point averages in vocational agriculture. Gibson (1987) reported a significant positive relationship between quality of supervised experience program and student overall grade point average. Morton (1978) reported significant positive relationships between student score on a test of agricultural knowledge and: 1) opportunity to engage in supervised experience and 2) quality of supervised experience program.

When academically handicapped students in an agriculture work experience (AWE) program were compared with students from similar cultural and socioeconomic backgrounds enrolled in a regular production agriculture program, Archer (1970) found that prior to enrolling in the AWE program, the academically handicapped students had a significantly higher rate of absenteeism and a lower level of school motivation. However, after enrollment, there were no differences in absenteeism and school motivation between the two groups. Prior to enrolling in the AWE program, there was no significant difference in the grade point average of the two groups. After enrollment, the mean grade point average of the academically handicapped students was higher.

Several studies have indicated the on-the-job training provided by supervised experience programs was perceived to enhance employability skills. Cunningham (1964) reported that school superintendents believed that on-the-job training should be utilized in guiding students into agricultural occupations. In the same study, off-farm agribusiness personnel perceived on-the-job training to be a favorable method to guide students into off-farm agricultural occupations. Eighty-one percent of those agribusiness personnel responding expressed a willingness to cooperate in such activities.

Downer (1968) stated that businesspersons, vocational teachers, principals, and extension personnel perceived the objective of vocational agriculture as developing competencies needed by students to enter and advance in agricultural occupations. Those same respondents indicated that occupational competencies could best be learned by experiences which bring students into contact with occupation-related activities.

Watkins (1981) reported that employers ranked "help in dealing with job related problems that are encountered by the students" as the most important benefit of summer supervised experience programs. The employers also perceived the summer programs to contribute to student occupational success.

Cheatham (1980) reported that agriculture teachers in Alabama perceived supervised experience as helpful to students in the development of good work habits, improvement of job related skills,

and in relating subject matter to occupations. Rawls (1978) indicated that parents perceived the development of a good work ethic, agricultural career orientation, and improved human relations skills to be benefits derived from supervised experience.

In a study of former vocational agriculture students engaged in farming, Smailes (1965) reported that almost 80% indicated that their supervised experience programs had either been "somewhat effective" or "very effective" in developing their interest in farming. The farmers indicated that the record keeping tasks associated with supervised experience were of greatest benefit.

In contrast to studies showing positive occupational benefits of supervised experience, Byler (1972) concluded that student vocational maturity, work values, and occupational aspirations were not related to type of prior supervised experience program. A study of Iowa young farmers yielded similar results - only about 37% of the respondents indicated that they had gained farming experience from their supervised experience programs (Crawford, 1969).

Teacher Characteristics Related to Supervised Experience

Several studies have identified teacher characteristics associated with supervised experience program quality. Basinger (1954) reported that school superintendents rated agriculture teachers in their school systems as having above average competence in the supervised experience component. Those teachers holding master's degrees received the highest ratings from school administrators (Basinger, 1954; Hardway, 1959). Those teachers with master's degrees were also found to spend more time with students at fairs and during summer supervision (Guiler, 1959).

Agriculture teachers who attended the state teachers convention were more likely to have students with high quality supervised experience programs (Harris, 1983). Harris also indicated that agriculture teachers who had students with high quality programs tended to recognize the educational value of supervised experience more so than did teachers who had students with lower quality programs. According to Harris, those agriculture teachers in large, multiple teacher departments placed more value on supervised experience than did their colleagues in smaller, single teacher departments. The teachers that were identified as providing low quality supervised experience activities appeared to place less emphasis in making supervisory visits and requiring supervised experience programs of their students than did the teachers who were identified as providing high quality activities (Harris, 1983).

Several factors related to the amount of time agriculture teachers spend supervising student programs have been identified. Briers (1978) found that as the average class size and distances from school to both teacher and student homes increased, class hours spent on supervised experience instruction increased. Briers reported that those teachers who had more personal farm experience tended to make more supervisory visits to their beginning agriculture students. Briers also reported that agriculture teachers visited students from farms with more animal units more frequently than they visited students from farms which had fewer animal units.

Byers (1972) reported that the more hours students spent working in their supervised experience programs, the larger the financial commitment to the program, and the fewer the number of students enrolled in agriculture classes, the greater the probability was that students received supervision by agriculture teachers. The same study indicated that the more farms having above $2500 gross sales there were per teacher, the less likely students were to be provided teacher supervision.

Arrington (1981), Gibson (1987), Buyck (1989), and Anyadoh (1989) indicated that extended teaching contracts were positively related to quality of supervised experience programs. Gibson reported a negative relationship between the number of outside school activities required of the agriculture teacher, other than FFA, and quality of supervised experience programs. Anyadoh reported a significant positive relationship between supervised experience program quality and the number of years of high school agriculture that the teacher had completed. Buyck indicated that past FFA activities of the teacher were also positively related to quality of supervised experience programs.

Gibson (1987) reported positive relationships between supervised experience program quality and: 1) the amount of supervision provided by the agriculture teacher at fairs and livestock shows, and 2) the amount of classroom instruction on supervised experience. Gibson found a negative relationship between the distance agriculture teachers lived from the school and quality of supervised experience programs.

Kirkland (1947) reported that first-year agriculture teachers perceived the training that they had received in supervised experience program planning, record keeping, and record analysis to be insufficient. However, Gibson (1987) found no significant

relationship between quality of supervised experience program and teacher perceptions of supervised experience training received.

Supervisory Visits

Harris (1983) reported that the majority of agriculture teachers in his study supported the concept of individualized instruction through supervisory visits to the student home or work site. Watkins (1981) reported that the majority of agricultural employers in her study believed that students benefitted by teacher visits to the work site.

In somewhat of a contrast to Harris and Watkins, Morton (1978) did not find a significant relationship between the number of supervisory visits made by the agriculture teacher and student achievement on an agricultural knowledge test. However, other researchers reported a positive relationship between the number of supervisory visits and quality of supervised experience programs (Harris, 1983; Gibson, 1987; Anyadoh, 1989).

Ohio agriculture teachers who were identified as being "most competent" spent 13.3% of their professional time during the summer performing on-farm student supervision compared to 11.4% for those agriculture teachers who were identified as being "least competent" (Guiler, 1959). In a similar study, Cepica (1977) reported that over 90% of Oklahoma agriculture teachers who were identified as having outstanding programs visited at least one-half of their students during the summer. Over 20% visited all of their students during the summer. McComas (1962) reported that 80% of the agriculture teachers in his study who were identified as being "most effective" indicated that an average of seven supervisory visits per year was needed to adequately supervise students. Sixty percent of those teachers identified as being "least effective" perceived six visits per year to be sufficient. Palmer (1953) reported that the agriculture teachers in his study made an average of just over five supervisory visits per student per year. Almost 28% of their job-related travel time was spent in connection with supervised experience programs. Agriculture teachers in a similar study reported spending an average of 1.5 hours per supervisory visit (Tolbert, 1954). Purkey (1951) reported that during school months, agriculture teachers worked an average of just over six hours per week in activities related to supervised experience programs. In summer months, the average increased to almost 12.

Guiler (1959) reported that agriculture teachers averaged 22 on-farm visits per month during the summer. Waliser (1958) and Wallace (1942) reported that agriculture teachers averaged 70 farm visits for the entire summer. Tolbert (1954) indicated that agriculture teachers spent 24% of their professional time supervising student programs on the farm during the nine regular school months and 29% of their professional time during the three summer months.

The extent to which school administrators support providing agriculture teachers release-time to make supervisory visits has been shown to be positively related to supervised experience program quality (Harris, 1983; Gibson, 1987). However, Beeman (1967) reported that slightly more than one-half of the school administrators in his study disagreed with releasing agriculture teachers from school duties at 1:00 pm each day to make supervisory visits. None of the agriculture teachers in the study disagreed with this concept.

Beeman found that agriculture teachers viewed the submission of a daily or weekly travel agenda of supervisory visits much less favorably than did school administrators. Harris (1983) reported that agriculture teachers did not support practices of planning and keeping records of supervisory visits which were perceived as possibly causing a decrease in the quality of supervision.

Beeman also reported that agriculture teachers were much more likely than were school administrators to believe that supervisory visits should be considered as part of the regular teaching load and not as extra-curricular. Watkins (1981) found that school administrators believed that the weekends and evenings spent by teachers working with students in a vocational horticulture program should not be counted as extended service time, but that school holidays and summer days should. The majority of those administrators indicated that how extended service time was spent should be the decision of the individual teacher.

Studies have indicated positive perceptions of agriculture teachers regarding the supervision of student programs in the summer. Brock (1976) found that a twelve month supervised experience program was perceived as beneficial to students by both rural and urban agriculture teachers. Those teachers in rural communities of 2500 people or less rated the 12 month program benefits higher than did their urban counterparts. Williams (1981) reported that all but one of the agriculture teachers in his study indicated that student programs should be supervised during the summer. All of those teachers indicated that current and prospective students

should be assisted with the selection of supervised experience programs during the summer. Over 80% of those teachers indicated that group supervised experiences should be provided for students during the summer, but only 26% reported conducting these activities. In a similar study, agriculture teachers rated "working with current students" and "working with prospective students" one and two respectively when ranking the importance of major summer activities (Cepica, 1977).

Research findings indicated that school administrators share similar views with agriculture teachers regarding summer supervision. Watkins (1981) reported that administrators ranked one-to-one instruction as being the most important aspect of summer supervision. The administrators indicated that during summer employment: 1) the primary duty of the agriculture teacher was to work directly with students; 2) the teacher should orient prospective students with the agriculture program; and 3) the teacher should work cooperatively with agricultural employers.

Expanding the Concept of Supervised Experience

In recent years, much attention has been given to expanding the concept of supervised experience to include activities designed for purposes other than providing entry-level job skills. Research findings indicated that this idea is not new, but has been promoted for several years. Brown (1965) found that the majority of agriculture teachers and school administrators in his study were fundamentally in agreement with the total vocational agriculture program being expanded to include non-farm occupations. Gipp (1959) concluded that many supervised experience programs in Ohio needed to become more comprehensive.

Potter (1984) gave support to expanding the supervised experience concept beyond employment on a farm or in a business when he concluded that a positive relationship existed between scope of in-school laboratory projects and mainstreamed handicapped student achievement in agriculture course work. Rawls (1978) found that 80% of the Iowa agriculture students in his study had either school laboratory-based or exploratory supervised experience programs. Cheatham (1980) reported similar findings among Alabama agribusiness students. Brock (1976) found that a school farm was viewed as being progressively more important as community population increased. Brock also concluded that urban agriculture teachers were more willing than their rural counterparts to limit class enrollment in order to ensure adequate supervision of students.

Anyadoh (1989) found a significant positive relationship between a school farm being provided for supervised experience and the quality of supervised experience programs. Beeman (1967) found a majority of agriculture teachers and school administrators agreed with schools providing land to the agriculture program for instructional use. Briers (1978) indicated that over one-half of the schools in his study provided some kind of facility (usually a land laboratory) for supervised experience programs. Bingham (1965) expressed the need for more school farms in Kentucky.

Buyck (1989) indicated that supervised experience programs can include a wide range of student activities. Research by Harris (1983) indicated that agriculture teachers believed that classroom instruction should be related to supervised experience programs, but that the programs did not necessarily have to match student career goals.

As early as 1953, it was reported that students were experiencing difficulties conducting suitable supervised experience programs because of inadequate facilities or resources (Diley, 1953). Miller (1961) reported that 19% of Ohio agriculture students had no or only limited facilities for supervised experience. Of those students, about 63% conducted all or part of their programs on farms which were not owned by their family.

Leimbach (1964) reported that about 25% of the high school agriculture students in his study were from urban areas during the 1963-64 school year. This represented a 20% increase in urban student enrollment from the 1960-61 school year. Leimbach reported that about 75% of the agriculture teachers indicated making curriculum changes because of increasing urban student enrollment. Leimbach's found that twice the number of urban students as rural students in his study participated in supervised experience during the 1963-64 school year. However, no difference in interest in agricultural occupations between urban and rural students was found.

Gibson (1987) found a positive relationship between supervised experience program quality and student residence on farms. Gibson also reported a positive relationship between program quality and the families of students being dependent on farm income. Arrington (1981) reported a positive relationship between supervised experience program scope and students living in a rural area.

Lindsey (1978) found that the Ohio agriculture teachers in her study were experiencing an increase in the enrollment of students who had limited opportunities for supervised experience programs due to financial situation, lack of parental support, lack of facilities, or lack of academic ability. Lindsey found that a majority of the limited opportunity students participating in supervised experience programs were anticipating a career in agriculture, however, most of the agriculture teachers questioned the feasibility of these students entering farming as a career. Most of the teachers indicated that the agricultural experience gained through supervised experience was of more value to the limited opportunity students than were the profits earned.

Beeman (1967) reported that the majority of agriculture teachers and school administrators in his study favored requiring student participation in supervised experience (Beeman, 1967). Texas agriculture teachers indicated that participation should be required of production agriculture students (Harris, 1983). Researchers have recommended required supervised experience programs (Allen, 1979; Buyck, 1989; Beeman, 1967). Gibson (1987) reported a positive relationship between quality of supervised experience program and teachers requiring that a proportion of student grades be dependent upon the programs.

Conclusions

Conclusions are stated for each of the six categories of findings and are based on the assumption that perceptions and situations are the same today as when the reported research studies were conducted. Based on the reported findings, the following conclusions are made:

1. Among the program partners, agriculture teachers, school administrators, and agricultural employers are generally in agreement that supervised experiences provide students with skills and knowledge beneficial in agricultural and other types of employment.

2 Students and their parents do not value supervised experience as highly as do the other program partners.

3. All program partners are perceived to share responsibilities for carrying out supervised experience, however, the agriculture teacher is viewed as being primarily responsible for ensuring program quality.

4. Agriculture teacher job satisfaction, as related to supervised experience responsibilities, has declined over past years.

5. Agriculture teachers in multiple teacher departments place a higher value on supervised experience.

6. Participation in supervised experience is positively related to student achievement in agriculture course work and in their career.

7. Length of teaching contract, past participation of the teacher in FFA and vocational agriculture, teacher farm experience, scope of student programs, and teacher participation in state teachers convention are all positively related to quality of supervision provided by the teacher for supervised experience programs.

8. There is a negative relationship between the number of outside-school activities (except FFA) that the agriculture teacher is responsible and supervised experience program quality.

9. The most effective agriculture teachers make the most supervisory visits.

10. Agriculture teachers are more in favor of school release-time being provided for making supervisory visits than are school administrators.

11. Agriculture teachers view increased paperwork related to supervisory visits less favorably than do school administrators.

12. Agriculture teachers, school administrators, and agricultural employers place more value on the educational benefits provided students by teacher supervisory visits than do students or their parents.

13. The idea of expanding the concept of supervised experience has been promoted for several years.

14. There is a positive relationship between school facilities being provided for supervised experience and the quality of those supervised experience programs.

15. The number of limited opportunity students enrolling in agriculture programs is increasing. These students benefit greatly by the expanded concept of supervised experience.

16. All agriculture students should be required to participate in supervised experience programs.

17. Agriculture teachers desire more training related to conducting supervised experience.

Implications and Recommendations

Even though the reported research findings span a period of many years, there are important implications for today's agricultural education. There are also areas in which further research is warranted.

The negative perceptions that students and their parents showed toward supervised experience and supervisory visits imply a lack of communication between the agriculture teacher and the home. This reinforces the contentions of Lemon (1946) and Christensen (1964) that establishing positive relationships with parents is a primary task of the agriculture teacher.

The negative perceptions of parents and students imply two possibilities: 1) parents and students do not fully understand the purposes and procedures of supervised experiences and, therefore, do not value the experiences, or 2) parents and students do fully understand the purposes and procedures of supervised experiences but the purposes and procedures are not being adequately met nor performed. The truth is probably somewhere between these two possibilities.

Research efforts should be directed at determining the current perceptions of parents and students toward supervised experience and why negative perceptions exist. The agricultural education profession should also work at clarifying the role and value of supervisory visits.

Despite the negative perceptions of students and parents, supervised experience appears to have solid support from agriculture teachers, school administrators, and agricultural employers. This support implies that supervised experience is perceived to be pedagogically sound and that experiential learning is believed to be important to the education process as was advocated by Dewey (1938). The support of teachers, administrators, and employers suggests that supervised experience will continue to be a significant part of agricultural education provided there is adequate student and parental support. Positive research findings reported in this paper should be used to encourage the support of existing programs and the implementation of new programs.

There appears to be little emphasis placed on improvement projects. Apparently these activities have been overshadowed by other supervised experience activities. The agricultural education profession should clarify the role and value of improvement projects making them separate supervised experience programs or incorporating them as a part of all supervised experiences.

Theoretically, all program partners share responsibilities for supervised experience. However, in reality, the effectiveness of supervised experience programs is ultimately the responsibility of the agriculture teacher and students. Means of increasing the level of responsibility that partners have for supervised experience programs should be investigated. These means would certainly include preparing teachers to work more effectively with partners. Perhaps efforts to increase responsibilities and participation would improve program quality and perceptions of supervised experience.

The reported decline in agriculture teacher job satisfaction related to supervised experience responsibilities may be due to increased administrative duties and supervisory visits being relegated to primarily an after-regular-school-hours function. Perhaps a decline in supervised experience program quality and the lack of adequate training are linked to lower levels of teacher job satisfaction. Research is needed to determine possible predictors of job dissatisfaction and ways of correcting the problem.

Agriculture teacher education must be fully committed to the concept of supervised experience and provide future agriculture teachers the training needed to successfully carry out related responsibilities. There appears to be a need for inservice training of practicing agriculture teachers in the conducting of supervised experience activities as indicated by teacher beliefs that additional related training is needed.

Extended teaching contracts and the number of supervisory visits by the agriculture teacher are positively related to the quality of supervised experience programs. The number of outside-school activities (except FFA) for which the agriculture teacher is responsible is negatively related to quality of supervised experience programs. Agriculture teachers in multiple teacher departments place a higher value on supervised experience. These conclusions imply that the time available to the agricul-

ture teacher to spend on activities related to supervisory experience is positively related to supervised experience program quality. This relationship points out the need for summer contracts as well as adequate school release-time for teachers to make supervisory visits. Extracurricular responsibilities delegated to the agriculture teacher should be kept to a minimum.

The increased enrollment of limited opportunity students in agriculture programs necessitates a broadening of the supervised experience concept. This increased enrollment has implications for agriculture teacher education. Beginning agriculture teachers must be prepared to help students implement innovative supervised experience programs, and practicing teachers must be kept abreast of changes in supervised experience. More students with limited opportunity will require school and community facilities to be used to a greater extent in supervised experience programs, which should result in higher quality programs.

The findings reported in this paper provide insight into past research and should serve the profession as a reference indicating what is known about supervised experience. These findings also provide the profession a basis on which to make decisions and direct future research efforts.

As supervised **occupational** experience becomes supervised **agricultural** experience and the focus of the concept shifts to include education about agriculture as well as education in agriculture, researchers should monitor the perceptions of program partners and the effectiveness of supervised experience and effect changes where needed.

References

Allen, L. D. (1979). *Selected influences in attrition rates from vocational agriculture in Louisiana.* Unpublished doctoral dissertation, Louisiana State University, Baton Rouge.

Almazzan, I., Jr. (1981). *Adoption of supervised occupational experience curriculum materials by Iowa vocational agriculture teachers.* Unpublished doctoral dissertation, Iowa State University, Ames.

Anyadoh, E. B. (1989). *The relationship between selected factors and supervised occupational experience scores in Ohio.* Unpublished doctoral dissertation, The Ohio State University, Columbus.

Archer, B. B. (1970). *Ag work experience programs for academically handicapped youth in secondary schools.* Unpublished doctoral dissertation, The Ohio State University, Columbus.

Arrington, L. R. (1981). *Relationship of length of vocational agriculture teacher contract to supervised occupational experience program scope and FFA chapter activity level.* Unpublished doctoral dissertation, The Ohio State University, Columbus.

Basinger, L. A. (1954). *Superintendent's evaluation of teachers of vocational agriculture in Ohio.* Unpublished master's thesis, The Ohio State University, Columbus.

Beeman, C. E. (1967). *Perceptions of school administrators, vocational agriculture teachers, and members of the lay public concerning the changing role of vocational agriculture in Mississippi.* Unpublished doctoral dissertation, Cornell University, Ithaca, NY.

Bingham, W. R. (1965). *Agricultural occupations other than farming in selected Kentucky counties, with implications for vocational education.* Unpublished doctoral dissertation, University of Kentucky, Lexington.

Bridges, R. H. (1956). *Occupational patterns of vocational agriculture graduates in southeastern Ohio.* Unpublished doctoral dissertation, The Ohio State University, Columbus.

Briers, G. E. (1978). *An experimental evaluation of an instructional packet on supervised occupational experience programs for beginning vocational agriculture students in Iowa.* Unpublished doctoral dissertation, Iowa State University, Ames.

Brock, D. W. (1976). *A comparison of emphasis on selected aspects of programs of vocational agriculture in rural and urban areas of Texas as perceived by vocational agriculture teachers.* Unpublished doctoral dissertation, Oklahoma State University, Stillwater.

Brown, H. D. (1965). *An investigation of attitudes and opinions held by teachers of vocational agriculture and their administrators regarding selected areas of the vocational agriculture program.* Unpublished doctoral dissertation, Oklahoma State University, Stillwater.

Bruton, J. C. (1967). *The effect of vocational agriculture class enrollment and class experience on animal science knowledge of first year students enrolled in Oklahoma colleges of agriculture.* Unpublished doctoral dissertation, Oklahoma State University, Stillwater.

Byers, C. W. (1972). *The relationship of selected variables to the supervision provided students of vocational agriculture by their teachers.* Unpublished doctoral dissertation, The Ohio State University, Columbus.

Byler, B. L. (1972). *A study of factors associated with the vocational development of high school agricultural occupations students.* Unpublished doctoral dissertation, University of Illinois, Urbana.

Buyck, S. C. (1989). *Guidelines for a quality supervised agricultural experience program for a secondary agricultural education program.* Unpublished master's thesis, Southern Illinois University, Carbondale.

Carpenter, F. R. (1967). *A study of the relationship between selected educational experiences of vocational agriculture students and their*

enrolling in a college of agriculture. Unpublished doctoral dissertation, University of Missouri, Columbia.

Cepica, M. J. (1977). *A comparison of the summer programs of Oklahoma vocational agriculture teachers' and administrators' perceptions of selected aspects of the summer program*. Unpublished doctoral dissertation, Oklahoma State University, Stillwater.

Cheatham, W. J. (1980). *Importance of supervised occupational experience in vocational guidance as perceived by Alabama vocational agriculture teachers*. Unpublished doctoral dissertation, Iowa State University, Ames.

Christensen, V. E. (1964). *Factors influencing acquisition and retention of learning in vocational agriculture*. Unpublished doctoral dissertation, University of Wisconsin, Madison.

Chyung, W. H. (1969). *A study of vocational agriculture student teaching in the central region*. Unpublished doctoral dissertation, University of Minnesota, St. Paul.

Clark, R. M. (1950). *Factors associated with decisions of Michigan teachers to remain in or to leave the field of teaching vocational agriculture*. Unpublished doctoral dissertation, Michigan State University, East Lansing.

Collins, J. R. (1982). *Identification of selected factors which influence job satisfaction of vocational agriculture teachers in Area VIII of Texas*. Unpublished doctoral dissertation, Oklahoma State University, Stillwater.

Crawford, H. R. (1969). *Factors affecting the establishment of young farm operators in Iowa and implications for agriculture education*. Unpublished doctoral dissertation, Iowa State University, Ames.

Cunningham, R. E. (1964). *Administration and objectives of on-the-job guidance and training programs for vocational agriculture students in northwestern Ohio*. Unpublished master's thesis, The Ohio State University, Columbus.

Dewey, J. (1938). *Experience and education*. New York: The Macmillan Co.

Deyoe, G. P. (1949). *Supervised farming in vocational agriculture*. Danville, IL: The Interstate.

Diley, R. E. (1953). *Some characteristics of the four-year supervised farming programs of 1952 graduates of vocational agriculture in Ohio*. Unpublished master's thesis, The Ohio State University, Columbus.

Downer, H. I. (1968). *Attitudes of selected groups concerning the role of vocational-technical education programs for occupations in agriculture resources*. Unpublished doctoral dissertation, The Pennsylvania State University, University Park.

Drake, W. E. (1962). *Perceptions of the vocational agriculture teachers' professional role in Michigan*. Unpublished doctoral dissertation, Michigan State University, East Lansing.

Flickinger, C. F. (1942). *The association of certain boy, family, farm, and program factors with rated groups of individual farming programs*. Unpublished doctoral master's thesis, The Ohio State University, Columbus.

Gibson, G. L. (1987). *Factors associated with the supervised occupational experience programs of Kentucky vocational agriculture seniors*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

Gipp, P. H. (1959). *Farming programs of Ohio vocational agriculture students*. Unpublished master's thesis, The Ohio State University, Columbus.

Griffith, R. E. (1963). *Professional difficulties of beginning teachers of vo ag in Ohio*. Unpublished master's thesis, The Ohio State University, Columbus.

Guiler, G. S. (1959). *The use of professional time during the summer months by teachers of vocational agriculture in Ohio*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

Hardway, W. G. (1959). *Principal's evaluation of local programs of vocational agriculture in West Virginia*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

Harris, D. E. (1983). *Vocational agriculture teacher characteristics and their relationship to perceptions of SOE importance, attitudes toward supervision , and quality of supervised occupational experience programs*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

Haynes, R. (1981). *Impact of a supervised occupational experience instructional packet on Iowa vocational agriculture teachers as measured by a work values inventory*. Unpublished doctoral dissertation, Iowa State University, Ames.

Hedges, L. E. (1959). *Criteria used by parents in appraising programs of vocational agriculture*. Unpublished master's thesis, The Ohio State University, Columbus.

Jones, J. W., Jr. (1980). *Effectiveness of an instructional packet on supervised occupational experience programs as evaluated by agricultural knowledge achievement of Iowa vocational agriculture students*. Unpublished doctoral dissertation, Iowa State University, Ames.

Kirkland, J. B. (1947). *A study of the professional and technical difficulties encountered by teachers during their first year of teaching vocational agriculture*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

Knight, J. A. (1977). *Why vocational agriculture teachers in Ohio leave teaching*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

Leimbach, G. J. (1964). *Vocational agriculture for students from urban homes*. Unpublished master's thesis, The Ohio State University, Columbus.

Lemon, R. D. (1946). *Farming program supervision of all-day students as conducted by selected teachers of vocational agriculture in Ohio*. Unpublished master's thesis, The Ohio State University, Columbus.

Lindsey, S. J. (1978). *Supervised occupational ex-*

periences in production agriculture for students with limited opportunity. Unpublished master's thesis, The Ohio State University, Columbus.

McComas, J. D. (1962). *The role of the teacher of vocational agriculture as perceived by selected Ohio teachers and their administrators*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

Miller, F. L. (1961). *Farming programs for high school vocational agriculture students with limited farming opportunities*. Unpublished master's thesis, The Ohio State University, Columbus.

Morris, C. E. (1981). *The effect of a supervised occupational experience instructional packet on Iowa vocational agriculture students' self-image*. Unpublished doctoral dissertation, Iowa State University, Ames.

Morton, R. H. (1978). *The relationship between the quality of supervised occupational experience programs and achievement of students in vocational agriculture*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

National FFA Foundation. (no date). *SOE Handbook*. Madison, WI: National FFA Foundation.

Ogunrinde, S. I. (1981). *Student knowledge of agricultural occupations upon enrollment in agricultural programs in Ohio joint vocational schools*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

Palmer, D. N. (1953). *An analysis of paid travel used by teachers of vocational agriculture in Ohio, 1951-1952*. Unpublished master's thesis, The Ohio State University, Columbus.

Potter, O. B. (1984). *Supervised occupational experience programs and achievement of students mainstreamed in Ohio vocational agriculture programs*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

Purkey, D. R. (1951). *Time used for professional activities by teachers of vocational agriculture in Ohio*. Unpublished master's thesis, The Ohio State University, Columbus.

Rawls, W. J. (1978). *Parental perceptions of vocational agriculture supervised occupational experience programs in Iowa*. Unpublished doctoral dissertation, Iowa State University, Ames.

Smailes, W. F. (1965). *Influence of farming programs and other factors associated with pursuance of farming by graduates of vocational agriculture in Wayne County, 1953-1958*. Unpublished master's thesis, The Ohio State University, Columbus.

Stone, J. R. III and Wosner, R. (1991). An experiential education perspective on vocational education. *Journal of Vocational and Technical Education, 8*(1), 3-24.

Todd, H. E. (1965). *A role analysis of the perceptions of the beginning vocational agriculture teachers and their professional difficulties in role performance*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

Tolbert. R. H. (1954) *The use of professional time by teachers of vocational agriculture in Georgia*. Unpublished doctoral dissertation, The Ohio State University, Columbus.

Trump, K. E. (1961). *An evaluation of vocational agriculture by Ohio school administrators*. Unpublished master's thesis, The Ohio State University, Columbus.

Waliser, D. H. (1958). *Summer programs of teachers of vocational agriculture in Ohio*. Unpublished master's thesis, The Ohio State University, Columbus.

Wallace. M. W. (1942). *A study of the summer teaching load of 27 teachers of vocational agriculture in southwestern Ohio*. Unpublished master's thesis, The Ohio State University, Columbus.

Watkins, L. A. (1981). *Perceptions of vocational horticulture students, parents, horticultural industry employers and school administrators of the value of extended service contracts*. Unpublished master's thesis, The Ohio State University, Columbus.

Williams, R. H. (1981). *Teacher/administrator utilization of recommended guidelines for summer vocational agriculture programs in Area I of Texas*. Unpublished doctoral dissertation, Oklahoma State University, Stillwater.

Wright, R. L. (1989). *An assessment of the perceived importance of the economic impact of vocational agriculture supervised occupational experience programs (SOEP) within Oklahoma communities*. Unpublished master's thesis, Oklahoma State University, Stillwater.

SUMMARY OF RESEARCH SERIES

Supervised experience has been an integral part of vocational agriculture programs since 1908. Supervised experience, a collaborative effort of the agriculture teacher, school administrator, parents, students, and employer, provides an opportunity for students to apply and build upon what they have learned in class and in the laboratory. This summary synthesizes the research on supervised experience in agriculture as reported in theses and dissertations. It should serve as a useful reference to both teachers and researchers.

This summary was completed as a special project by Matthew Hughes and Matt Baker under the direction of R. Kirby Barrick. Matthew Hughes is a graduate student in the Agricultural Education Department at The Ohio State University. Matt Baker is Assistant Professor of Agricultural Education at California State Polytechnic University at Pomona. Dr. Barrick is Professor and Chair, Department of Agricultural Education, The Ohio State University. Special appreciation is due to Larry R. Arrington, University of Florida and Larry E. Miller, The Ohio State University, for their critical review of the manuscript prior to publication.

Research has been an important function of the Department of Agricultural Education since it was established in 1917. Scholarly activities conducted by the Department have generally been in the form of graduate theses, staff studies, funded research, and synthesis of previous research. It is the purpose of this series to make useful knowledge from such research and synthesis available to practitioners in the profession. Individuals desiring additional information on this topic should examine the references cited.

Wesley E. Budke, Associate Professor
Department of Agricultural Education

SR 65 1991